Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

UNITED STATES DEPARTMENT OF AGRICULTURE
Radio Service
OFFICE OF INFORMATION

HOUSEKEEPERS' CHAT Wednesday, March 9, 1938

(FOR BROADCAST USE ONLY)

Subject: "CAKES AND LARD." Information from the Office of Experiment Stations, United States Department of Agriculture.

--ooOoo--

Grandmother knew -- and most good cooks know today that lard is the pastry shortening par excellence. Grandmother used lard to make her tender flaky pie crust and biscuits. And her choice is still right. No other fat is as economical as lard for pastry.

But lard for cake -- that's another story. Grandmother's favorite cake recipes probably called for butter or cream rather than lard. Today commercial bakeries generally are using other fats than lard for cakes. And housewives are using butter or cream or the so-called lard substitutes -- those cooking fats largely made of cottonseed or other vegetable oils.

Last year Matilda Peters at the Nebraska Experiment Station made a survey to find out what kind of fat Nebraska housewives used in cake-making, and why. She also inquired as to the fat these women would prefer to use for cake if they had their choice, and why.

Some 1600 Nebraska women answered these questions. Half of them said they used butter for their cakes, a quarter of them used cream, and a fifth lard. The reasons they gave for selecting these particular shortenings were: that they gave better flavor and texture to the cake, or that these fats were on hand on the farm. Reasons like the nutritive value of the fat, or its creaming qualities, or even its cost, they considered less important.

As for their preference in fats for cake-making, 65 percent -- more than half would choose butter, 18 percent would choose cream, and only 3 percent would still prefer lard.

Lard substitutes, the cooking fats generally called vegetable shortenings which sell under various trade names, are probably used most for cake making in cities and in the South -- wherever housewives haven't the butter and cream that are available on many northern farms. The Iowa Station reports that these vegetable shortenings are the chief competitors of lard and that they are most used in the Western and South Central States. Because they are firmer than lard and keep better, they have their advantages in the warm South. Then, too, most of them are produced in the Cotton Belt because cottonseed oil is the chief ingredient.

At all events, the experience of cooks from grandmother's day down to the present seems to have been that lard is less successful than many other fats for cake-making. The recipe which makes a delicious cake with butter or with a lard substitute makes a greasy, heavy, strong-tasting cake with lard.

Just recently foods scientists in several State laboratories have investigated to find out why lard acts this way in cake mixtures and how to overcome these difficulties and make a good cake with lard. In general, all the studies agreed that our so-called "standard" or "conventional" way of mixing a cake was not suitable for lard.

As every good cook knows, the standard method of mixing is to cream all the sugar and fat together first, then add the beaten egg yolks, and then the flour and milk alternately. The whipped egg whites go in last. This works with butter and with many vegetable shortenings. But with lard it gives a very thin greyish batter which when baked is a flat, greasy cake with a shiny crust and intense lard flavor and odor.

Belle Lowe of the Iowa baking laboratory found that the big mistake in mixing a lard cake by the standard method is adding egg directly to the lard and sugar. Lard and egg don't seem to get along together the way other fats and egg do. As soon as the egg meets the lard, the mixture thins out and stays thin, eventually spoiling the cake. The easy Iowa way of avoiding this difficulty is to camouflage the egg in the milk. Beat the egg yolk up in the milk and then just go ahead and add milk and flour alternately to the creamed lard and sugar. The Iowa people reported excellent cakes as a result of this little change in method.

Here are a few other hints from Iowa: Lard is especially good for cakes with a pronounced flavor like spice and chocolate. For white cakes, pound cake or any cake where a bland flavor is desired, use the odorless and tasteless hydrogenated lard. In recipes calling for butter, use less lard when you substitute. For each cup of butter called for, substitute four-fifths cup of lard. Fill the cup with lard, level it off, and then take out exactly 3 tablespoons which is a fifth of a cup.

Dorothy Berrigan of the North Dakota Station who made a study of lard for bakery cakes found out several other ways to improve a lard cake. She agreed with the Iowa people that egg and lard don't get along well if added directly to each other. As she explains it, "Albumin and lard have an antagonistic reaction." Her method of getting around that was to make a meringue of the egg and a fourth of the sugar and add this meringue to the cake mixture in the last half minute of mixing.

She also found that to produce a cake shortened with kettle-rendered lard that scores up to one made with hydrogenated shortening, the standard proportion of ingredients needs to be changed. She used more lard and less sugar and liquid than the original recipe called for. And then because she added the egg in the form of meringue at the end of the mixing, she used a lower temperature for baking.

The Nebraska investigators also report that they have succeeded in making good cakes with lard by changing the method of mixing.

****